

REMARKS/ARGUMENTS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claim 17 was objected to because of a noted informality. Claim 17 has been amended above to correct the matter noted by the Examiner.

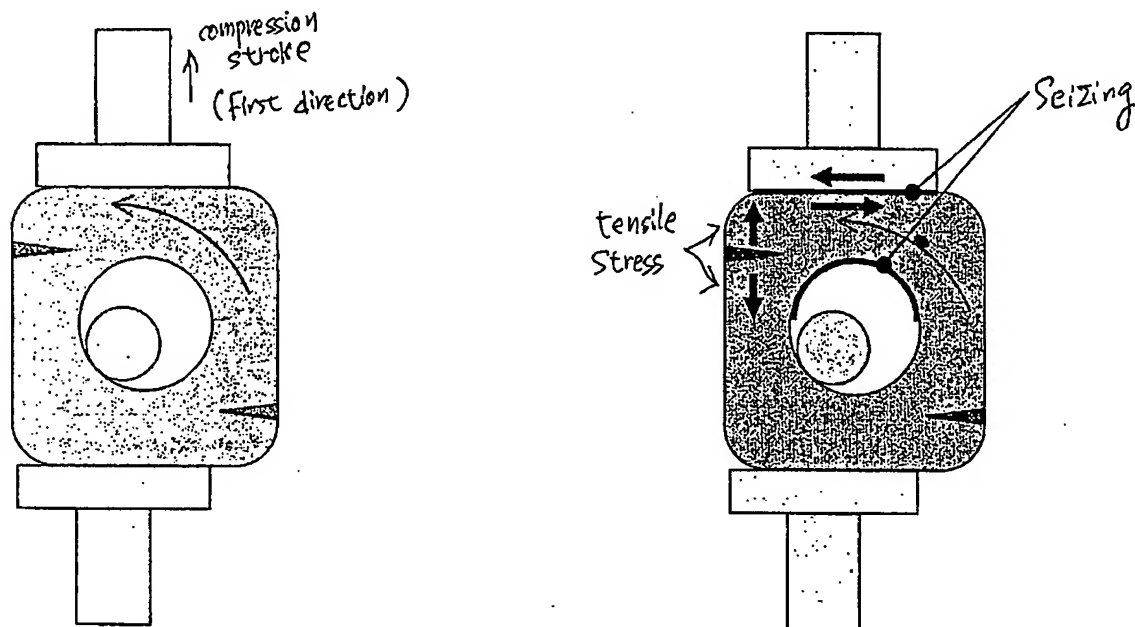
Claims 1-6, 8, 11, 13, 15 and 17 were rejected under 35 USC 102(e) as being anticipated by Suzuki. Applicant respectfully traverses this rejection.

Claims 1, 4 and 13 have been amended to more clearly characterize the invention and underscore the distinctions from the structure of Suzuki et al.

For example, when the eccentric cam 19, as demonstrated in Figs. 3(a) to 3(e), is rotating counterclockwise to place an upper one of the plungers 12 in the compression stroke (the first direction, as recited in the above claim 1) and to place a lower one of the plungers 12 in the suction stroke within a range of 0° to 180° (i.e., $0^\circ < \theta < 180^\circ$), in other words, when the cam ring 21 is being moved to the left, as viewed in Figs. 3(a) to 3(e), by the eccentric rotation of the eccentric cam 19, and the upper plunger 12 is being lifted upward by the pressure, as produced by the eccentric rotation of the eccentric cam 19, it will cause the physical load to be exerted by a tappet of the upper plunger 12 on the upper surface of the cam ring 21, which may lead to seizing between the tappet and the upper surface of the cam ring 21. Such seizing will result in an increase in resistance to sliding motion of the cam ring 21 on the tappet of the plunger 12. However, the cam 19 continues to rotate, thus applying tensile stress to the groove 26, so that the groove 26 is broken or split to create a crack in the side surface of the cam ring 21 (see Figs. 4(a) to 4(d)). If the groove 26 is formed in the middle of the cam ring 21, the tensile stress hardly acts thereon, so that a portion of the cam ring 21 other than the groove 26 may be broken. Additionally, if the right side groove 26, as viewed in Figs. 3(a) to 3(h), is formed in an upper portion

of the cam ring 21 or the left side groove 26 is formed in a lower portion of the cam ring 21, it will cause the load to act thereon during the compression stroke of the plungers 12, so that the grooves 26 may be broken during the movement of the plungers 12 without seizing between the plungers 12 and the cam ring 21.

Suzuki et al disclose a groove 71. Groove 71, however, as can be seen in Fig. 6A, does not extend over the entire width of the cam ring 70. The grooves 28 of the applicant's structure, as described in lines 11 to 14 on page 16 of the original text, extend over the whole of width of the cam ring 21 (i.e., from one axial end to the other axial end of the cam ring 21), thereby facilitating the formation of the crack in the cam ring 21.



$$0 < \theta < 180^\circ$$

Figs. 3(a) ~ 3(e)


MORI, K.
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For all the reasons advanced above, reconsideration and withdrawal of the rejection over Suzuki are respectfully requested.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 
Michelle N. Lester
Reg. No. 32,331

MNL:slj
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100